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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/825,585	04/04/2001	Sehyun Kim	2550-004	3719

7590

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EXAMINER

WOODWARD, ANA LUCRECIA

ART UNIT

PAPER NUMBER

1711

DATE MAILED: 07/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 09/825,585	Applicant(s) KIM, SEHYUN	
	Examiner Ana L. Woodward	Art Unit 1711	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

*Three*

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE \_\_\_\_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on July 6, 2004, July 03, 2001
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                                   | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. ____   |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>7/3/01</u>  | 6) <input type="checkbox"/> Other: ____                                     |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election of copolymers of ethylene as the impact modifier in the reply filed on July 6, 2004 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

### ***Claim Rejections - 35 USC § 112***

2. Claims 1-26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 1, 10 and 19, it is suggested that "polypropylene polymer" read --propylene polymer-- or --polypropylene-- to avoid redundancy.

In claims 1, 10 and 19, the impact polypropylene component and the impact modifier component read on one and the same entity. This is because the polypropylene contains ethylene and, as such, reads on an "olefin copolymer of ethylene".

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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4. Claims 1-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. 5,852,115 (Young et al) further in view of U.S. 6,306,318 (Ricciardelli et al) or U.S. 6,228,479 (Zegler et al).

Young et al disclose homogeneous thermoplastic blends formed by melt blending, in an extruder under conditions sufficient to produce a homogeneous blend, 1) a carpet scrap, 2) a polymeric compatibilizer and 3) polypropylene and/or ethylene vinyl acetate. Of particular interest are noted examples 88 and 89 of Table 13, containing a blend of carpet scrap, Kraton compatibilizer and polypropylene. In this regard, the exemplified MSL-1 carpet scrap, a multi-component product comprising 14% nylon, 4% polypropylene, 11% ethylene vinyl acetate and 71% filled ethylene vinyl acetate (see Table 1), reads on the presently claimed scrap material, the exemplified Kraton consisting of polystyrene endblocks and poly(**ethylene/butylene**) midblocks, reads on the presently claimed ethylene copolymer impact modifier and the exemplified polypropylene, generically embraces the presently claimed polypropylene components containing ethylene units.

Examples 88 and 89 differ in essence from the presently claimed invention only with respect to the amount of Kraton material used. As evidenced by the reference disclosure at column 12, lines 23-27, the compatibilizer can be added in amounts up 30% by weight. Accordingly, it would have been obvious to use up to 30% by weight of the Kraton compatibilizer in the examples with the reasonable expectation of success. It is maintained that a composition comprising, e.g., 45% carpet scrap, 25% polypropylene and 30% Kraton, would fulfill the requirements of the present claims both in terms of the types of materials added and

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their contents. This is because the polypropylene and Kraton would correspond to a “blending composition” per the present claims comprising 45% polypropylene and 55% impact modifier.

As presently recited, the impact modifier does not preclude a copolymer containing polystyrene units in addition to poly(ethylene/butylenes) units.

With respect to claim 4 and 13, it is within the scope of the reference to additionally incorporate ethylene vinyl acetate resin so long as the combination of compatibilizer and ethylene vinyl acetate resin does not exceed 30% by weight (column 12, lines 23-27, column 11, lines 21-28). Accordingly, absent evidence of unusual or unexpected results, no patentability can be seen in the addition of ethylene vinyl acetate resin.

With respect to claim 19, Young et al does not expressly disclose the use of plasticizers. The addition of plasticizers to recycled waste polymeric materials is well known in the art, as shown by the secondary references. Accordingly, it would have been obvious to one having ordinary skill in the art to have added a plasticizer to the recycled waste materials of Young et al for its expected additive effect, absent evidence of unusual or unexpected results.

### ***Response to Arguments***

5. Applicant's arguments filed July 6, 2004 have been fully considered but they are not persuasive.

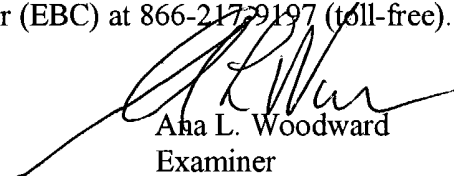
It is maintained that the reference's Kraton, consisting of polystyrene endblocks and poly(ethylene/butylene) midblocks, reads on the presently claimed ethylene copolymer impact modifier. As presently recited, the impact modifier does not preclude a copolymer containing polystyrene units in addition to poly(ethylene/butylenes) units.

***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ana L. Woodward whose telephone number is (571) 272-1082. The examiner can normally be reached on Monday-Friday (8:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James J. Seidleck can be reached on (571) 272-1078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Ana L. Woodward  
Examiner  
Art Unit 1711

AW